ZERO RETRIES

Newsletter for NAPRA
NORTHWEST AMATEUR PACKET RADIO ASSOCIATION
October 1987

NAPRA Meetings

NAPRA general membership meetings are held in Tacoma and in Renton on the second Saturdays of alternating months. October's meeting will be on **October 10** in Renton at the BEARS clubhouse. The November meeting will be held on **November 14** in Tacoma at the Radio Club of Tacoma clubhouse. Meetings are held at 1:00 pm and a technical committee meeting usually folllows. NAPRA board meetings are held on the third Thursday of each month.

Election of Officers

As has been the policy since NAPRA organized, our October meeting is when we hold our election of officers. Listed below are those who were recruited by the nominating committee to serve as our board of directors for next year. Nominations will be open before the elections on **October 10.**

President - Budd Churchward - WB7FHC
Exec. VP - Don Wurtz - KA6QMT
Tech. VP - Bob Donnell - KD7NM
Secretary - Ren Roderick - WA7QFR
Treasurer - Peter Dahl - WA7FUS
Board at Large (one position open)
- Larry Babcock - WB7USL
- Mel Martin - N7BCY
- Bob Albrightson - N7AKR

CURRENT OFFICERS

Pres. - Sammy Sewell - WN7ANK
Exec. VP - Sperry Goodman - W7AZU
Sec. - Pat Morgan - N7CAK
Treas. - Budd Churchward - WB7FHC
Directors at Large - Larry Babcock -WB7USL
Tom Hogan- WB7DCH

Youth Net Is Back From Summer Break

Beginning October 5 Youth Net returns to the air each Monday evening from 7 to 9 pm. We encourage local packet operators to bring youngsters interested in amateur radio to their keyboards for QSO's with others their age and the rest of us who are willing to share an experience that most teanagers have found exciting and interesting.

The Youth Net digipeater on 223.60 MHZ is in the assembly stage but watch for activity on the 224.56 packet repeater and all networked LANs

WB7FHC Budd Churchward

TCP/IP

In the Seattle area there is more to packet than meets the eye (antenna) on 145.01. There are other frequencies in use. What I would like to bring to light in this discussion is the packet activity taking place on the 146.98 repeater.

The activity is called TCP/IP. Most people in the packet community have heard this acronym. It stands for Transmission Control Protocol and Internet Protocol. It is used on top of the AX.25 link layer that TNCs normally support. To make a long story short it is used to support things like file transfer, network virtual terminal (chat mode), electronic mail, etc.. For those who are interested in jumping on the "world of real networking" bandwagon, there are programs available for ibm-pc and clones. The easiest way to obtain a copy of the code and info on tnc modifications, send mail to either N7AKR, or KB7DZ on the KE7OM bbs. If that doesn't work one of the people listed below might be easier to reach.

Some of the callsigns of the heavy hitters are: N7AKR, KB7DZ, KE7OM, WB7DCH, WA7ZWD, KD7NM, WA7HRA, WA7QFR, N7FYA, KO7M, N7BTI, N7BFG, N7HFZ, AK7S, N7IPJ, WA7NTF, WA7FUS, KD7QR, N1DMM, N7CAK, WA7OSQ, WB7TLK.

Bob Albrightson N7AKR

Packet Radio Magazine

Packet Radio Magazine, the magazine which NAPRA chose to use as its newsletter has ceased publication. FADCA, the Florida Digital Communication Association, which had published PRM notified NAPRA and other groups which had participated to let us know that it was no longer possible for them to handle this project. Several NAPRA members has expressed interest in the production of a newsletter for NAPRA which would concentrate on the packet happenings in the Northwest and those which are happening elsewhere that might be of interest to us and/or effect us in some way. If you would like to participate in some way in our newsletter please contact the new board members in October. The newsletter will always need articles and ideas you may have to contribute.

From: Tom Clark, W3IWI
Subject: 1987 Net Conference Report

This past weekend (8/29) several of us from the Balto/Wash/Philly area (WB6RQN, N4HY, KA9Q, W3IWI) attended the ARRL Networking Conference in LA. For more details, conference proceedings are available from ARRL, but here are some personal observations.

The event was tied to the monthly TRW swapfest which started at 7AM and was pretty well done by 10 AM. The combination of the swapfest, plus a lot of packet activity in the Greater Disneyland Basin, plus the excellent tech-nical program yielded an attendance around 300 for the all-day meeting. Attendees from afar included LU and DL.

The protocol 'wars' continued unabated. The TCP/IP camp was represented in papers by KA9Q, K3MC, N3EUA, PA0GRI, WB6RQN and N3CVL. The efforts by the TCP group are quite spectacular and serve as a model of how a team can function as well as how the network can work. N2DSY and W2VY presented a status report on the COSI software development (which has already been circlated thru MDCBBS channels) as well as showing off two prototypes of GLB's 220 MHz digital radio and distributing KA2BQE's new PRMBS BBS code. Texnet was represented by N5EG who told of the progress in tying the state of Texas together in a large network. Although the NET/ROM folks made no formal presentations, they were represented by both W6IXU and WA8DED who held an ad hoc NET/ROM sysop meeting after the main meeting ended. My personal impression is that NET/ROM plus TCP/IP are on the verge of winning the war, based on the state of development, proven robustness and public acceptance.

There was a lot of discussions in the meeting about the lower layers radios and modems. W3IWI was quoted as saying "the bit stuffers have shown that they can do their job — now packet radio's biggest problems are radios!". The 56 kbaud efforts of WA4DSY in Atlanta have caught the attention of a lot of people and certainly has set a standard of excellence to measure future efforts against. In the measuring arena, K9NG described techniques for measuring (and tweaking) bit error rate performance of modems. LU4DXT told of his comparisons of the JARL/QEX/TAPR/IWI 1200 baud psk demod, the G3RUH PSK demod, and XR2211 and AMD7910 AFSK demods. I was quite pleased to see that mine 'won the contest' and was within 2 dB of a perfect theoretical modem (the 2211 lost by a bunch!).

As part of the 'next wave' W3IWI and N4HY told of our efforts in digital signal processing (DSP) using TMS32010 co-processors in stock PC's which could be used to implement optimum modems, digital speech processors, weak signal detection algorithms, test equipment, etc. all in software. W3IWI told of weak signal tests (EME with Oscar-10 class stations)

that were in progress and N4HY told about his software implementation of a FO-12 PSK demodulator. We then announced that AMSAT and TAPR were sponsoring a DSP project for a team hard-core intense experimentalists and that we are now signing people up and taking orders for a group buy of 32010 boards.

NK6K and WB6YMH told of the software they have written (based on the KISS TNC) which does an in depth statistical analysis of on-the-air performance (measuring channel loading, number of retries, collisions, etc.) and showed what 145.01 looks like in Smog City. We should get a copy of their code and run similar tests in this area to see if our preconcieved notions are bourne out in facts.

There were a number of 'applications' presentations — full-duplex digis, tracking of health and welfare information in emergencies (based in large measure on our experiences last January after the train wreck, I was pleased to note), message routing algorithms, etc. I refer you to the proceedings for more details.

The out-of-towners stayed at one motel, so there was a lot of late night, bleary-eyed discussions, disk copying, and generally poking barbed jabs at each other that made the whole trip great.

Congratulations to NK6K, WA6JPR, WA2KDL and the TRW Radio Club for a superb job.

73 de Tom, W3IWI

ELN

By the time you read this or shortly there after, you should be able to connect to the eastern side of Washington via a Net/ROM node on a nearly 7000 foot mountain near Mission Ridge. The alias of the node will be ELN and the call sign will be N7HHU-8. This addition to our network has been made possible by a lot of hard work by a lot of dedicated and talented people. We owe a lot of thanks to **Russ Kroeker, N7HGE** and the **BEARS** and the **Mission Ridge Repeater Association** for their work on the hardware and the site.

Packet Ragchew Goes Wide Area

Thanks to the BEARS and other repeater groups which make up the Evergreen Connection Repeater Network, our Thursday Night Packet Ragchew can now have participation from packeteers in most areas of bothWesttern and Eastern Washington and much of British Columbia. This linked repeater system will soon be connected to Longview which will bring in parts of Northwest Oregon and then the network will continue down to Salem, Oregon. They say that someday the system will extend through California to the Mexican border. Where it goes from there is anybody's guess. Stay tuned, watch, and lend a hand as you can. The BEARS sure deserve our thanks, congratulations and thanks for this fine system.

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